

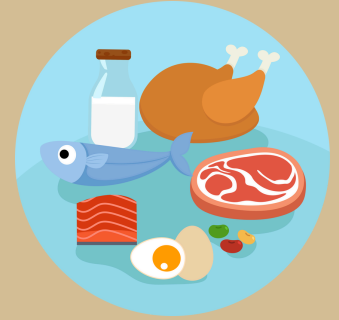
# Protein Power: How Much Do Youth Really Need?

## Protein? What is it?

Proteins are chains of amino acids that are linked together by peptide bonds. Yeah, this is scientific! These amino acids are tiny building blocks in the body. There are a total of 20 amino acids that are joined together to form all of the proteins that the human body needs. Did you know that the human body can only make certain proteins while others need to come from foods in our diet? Meat, poultry, fish, eggs, milk and cheese have all of the essential amino acids that we need.

Protein has many “jobs” in the human body. It helps do the following:

- Maintain, repair and rebuild healthy muscle and bone
- Heals wounds
- Provides energy for daily activities
- Prevents fatigue
- Helps the body fight disease and illness
- Helps support healthy hair, skin, nails, and cartilage

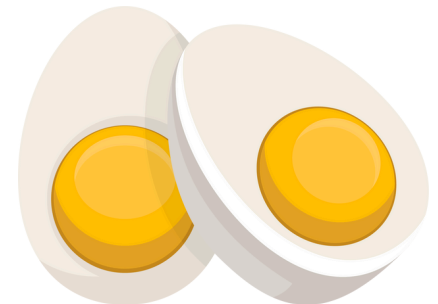


## How much protein is recommended?

- Protein is essential to life and needs to be consumed with each meal.
- Athletic performance depends on muscle strength and muscles are made of protein. Although athletes who are involved in strength and endurance training may need slightly more protein, it's a mistake to think you can simply build up muscles by eating lots of protein. Exercise, not dietary protein, increases muscle mass!
- It is important to know that the amount of protein that you need will depend on your height, weight, whether you are a male or female, and your level of activity.
  - It is recommended that teenage boys need about 52 grams of protein per day, while teenage girls need about 46 grams per day. However, if you are small or large for your age, or very active, your needs are different. For more information on specifically how much protein you need, schedule an appointment with your family physician.
- Each gram of protein provides 4 calories (the same as carbohydrates) and protein should make up about 10% to 12% of each day's calories. There are approximately 22 grams of protein in 3 ounces of meat, fish, or poultry. An 8-oz glass of milk contains about 8 grams of protein. Therefore, an average teenager who is drinking 3 glasses of milk a day does not need enormous amounts of meat to meet their daily protein requirement!
- The general recommendation is to eat between 0.8 and 1 gram of protein for each kilogram of body weight every day. So what does that mean? Let's do some math...
  - If you know your weight in pounds, divide that by 2.205 to get your weight in kilograms.
  - Multiply that number by 0.8.
  - That's how many grams of protein is recommended that you consume. For example, if you weigh 170 pounds, that's about 77 kilograms. Multiplied by 0.8 is 61.6. In theory, then, a 170-pound person should eat 61.6 grams of protein a day at minimum.

## What if someone does not consume meat?

Those who do not eat meat or who are vegetarian can still meet their protein needs. Pairing foods this way is often referred to “protein complementation.” Eating a grain and a legume will do the trick! A few examples of this could be pairing beans and tortillas, a peanut butter sandwich on wheat bread, and/or black-eyed peas and rice. You can also compensate for any lack in a plant-based food by adding a small amount of animal-derived protein, such as in pasta with cheese or cereal with milk!



# Ways to Consume Protein



We already discussed that protein is essential for youth because it helps repair and build muscles, supports recovery, and prevents muscle loss. Incorporating protein will also help boost energy, strengthen the immune system, and promote bone health, which in the long run will reduce the risk of injury. No one wants to be injured! Below are few recommendations on what a balanced diet with protein looks like to ensure optimal performance, growth, and recovery!

- Greek Yogurt with Honey and Berries: Greek yogurt is high in protein, and adding a bit of honey and fresh berries makes it a tasty treat.
- Peanut Butter and Apple Slices: Apples provide fiber, while peanut butter adds protein and healthy fats.
- Hummus and Veggie Sticks: Serve hummus with carrots, cucumbers, and bell pepper sticks for a crunchy, nutrient-packed snack.
- Cheese and Whole Grain Crackers: Pairing cheese with whole grain crackers adds protein and fiber for a balanced snack.
- Hard-Boiled Eggs: Simple, portable, and packed with protein.
- Trail Mix: Combine nuts, seeds, and dried fruit for a sweet and salty snack with plenty of protein from the nuts and seeds.
- Protein Smoothies: Blend Greek yogurt or milk with a banana, spinach, and some nut butter for a protein-packed smoothie.
- Turkey or Chicken Roll-Ups: Roll slices of turkey or chicken breast with cheese or veggies for a quick, high-protein snack.
- Edamame: Boiled and lightly salted edamame are a fun, protein-rich snack that's easy to eat.
- Cottage Cheese with Fruit: Cottage cheese is another great protein source, and you can mix it with fruits like pineapple or peaches for added sweetness.

Food	Serving size	Protein content
Grilled chicken breast	3 ounces	29.5 grams
Ground turkey	3 ounces	23.3 grams
Salmon	3 ounces	21.6 grams
Plain nonfat Greek yogurt	7 ounces	19.9 grams
Hard-boiled egg	1 large egg	6.3 g

## What about protein supplements?

Athletes and other individuals who exercise regularly many times will use protein powder to make a post-exercise drink. Did you know that chocolate milk has been shown to be a “close to perfect” natural post-exercise supplement? This is because it contains the optimum ratio (4-to-1) of carbohydrates to protein as well as contains casein and whey. Casein and whey are labeled by nutrition experts as “slow” and “fast” proteins that replenish muscles right away and during an extended period of time. Note that if you want to save money, milk is the way to go! It is less expensive than protein powder and will give you more nutrients than whey powder supplements. If you do choose to consume protein supplements, be sure to read the Nutrition Facts Label, as many protein supplements contain a high amount of sugar!



As a parent/guardian, it is important to set a good example. You can do this by including protein-rich foods like lean meats, eggs, nuts, and beans in your meals. Opt for balanced, nutritious snacks, and make healthy eating a family habit. Show your youth how to prioritize protein for energy and recovery, especially around workouts and activities!